" LANG et al.

Appl. No. Unassigned

Divisional of Serial No. 09/831,019

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**IN THE CLAIMS:** 

Amend the claims as follows.

Claims 1-13 (Canceled).

14. (new) Multimers built up from recombinant proteins analogues of class I

MHC, characterized in that the proteins comprise at least one modification in the zone

of interaction of a heavy chain with the CD8 co-receptor of T lymphocytes leading to a

reduction, or even suppression of the affinity of the interaction between the heavy chain

and CD8.

15. (new) Multimers according to claim 14, characterized in that the modification

relates to the  $\alpha$ 3 domain of the heavy chain.

16. (new) Multimers according to claim 14, characterized in that the modification

corresponds to a mutation in the  $\alpha$ 3 domain of at least one amino acid, with respect to

the corresponding domain of a native heavy chain capable of binding to the said CD8

co-receptor.

17. (new) Multimers according to claim 14, characterized in that the modification

corresponds to chemical modification of at least one amino acid of the  $\alpha 3$  domain of a

heavy chain, with respect to the corresponding domain of a native heavy chain capable

of binding to the said CD8 co-receptor.

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- 18. (new) Multimers according to claim 14, characterized in that the modification corresponds to the deletion of at least one amino acid of the  $\alpha 3$  domain of a heavy chain, with respect to the corresponding domain of a native heavy chain capable of binding to the said CD8 co-receptor.
- 19. (new) Multimers according to claim 14, characterized in that they are in the form of complexes with antigenic peptides.
- 20. (new) Multimers according to claim 19, characterized in that they are in the form of tetramers.
- 21. (new) Use of multimers according to claim 19 for the purpose of detection and/or isolation of peptide-specific CD8+ T lymphocyte populations.
- 22. (new) Use according to claim 21 in a process for cell screening, such as immunomagnetic screening.
- 23. (new) Method for the detection of peptide-specific CD8+ T lymphocyte populations from a polyclonal population, characterized in that it comprises:
- bringing the polyclonal population into contact with multimers complexed with antigenic peptides according to claim 19 under conditions which allow interaction between the modified class I MHC/peptide complexes and T lymphocyte receptors which have an affinity for the said complexes,

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- visualization of the lymphocyte populations which are bound to the said complexes.
- 24. (new) Method for isolation of peptide-specific CD8+ T lymphocyte populations from a polyclonal population, characterized in that it comprises:

  bringing the polyclonal population into contact with magnetic beads on which are bound the peptide/class I CMH analogue complexes according to claim 19 under conditions which allow interaction between the said complexes and T lymphocyte receptors which have an affinity for the said complexes,
- recovery of the bound populations, the screening operation being repeated, if desired, and/or followed, where appropriate, by a stage
  - of *in vitro* amplification of the populations selected.
- 25. (new) Lymphocyte populations which have been selected and, where appropriate, amplified, characterized in that they are made up exclusively of T lymphocytes which are reactive towards the peptide of a complex with multimers according to claim 19.
- 26. (new) Pharmaceutical compositions which can be used, in particular, in immunotherapy, characterized in that they are built up from a lymphocyte population according to claim 25 in combination with a pharmaceutically inert vehicle.